

IMRE, Gyorgy, dr.; KOREL, Maros Imre, dr.; OPAUSZKI, Anna, dr.

On epidemic keratoconjunctivitis. Orv. hetil. 104 no.8:353-357 24 ?  
'63.

1. Budapesti Orvostudományi Egyetem, II. Szemklinika.  
(KERATOCONJUNCTIVITIS) (IRIDIS) (ANTIGEN-ANTIBODY REACTIONS)  
(PILOCARPINE) (CORNEA)

L 43960-66 IJP(c) W77

ACC NR: AP6032107

SOURCE CODE: HU/0005/66/000/001/0003/0007

AUTHOR: Kiss, Istvan; Matus, Lajos; Opauszky, Istvan

ORG: Central Physics Research Institute, MTA, Budapest (Magyar Tudományos Akadémia E  
Kozponti Fizikai Kutató Intézete)

TITLE: Measurement of natural variations in the isotope distributions by an MI-1305  
type mass spectrometer

SOURCE: Magyar kémiai folyóirat, no. 1, 1966, 3-7

TOPIC TAGS: mass spectrometer, isotope/MI-1305 mass spectrometer

ABSTRACT: The MI-1305 type mass spectrometer was adapted with some modifications of  
design and measuring technique for the measurement of variations in relative isotopic  
proportions in the natural state. The method was used primarily in connection with  
geological investigations, and permitted the determination of the abundance of  
carbon isotopes in petroleum, coal and rock types of inland origin, as well as the  
isotope composition of carbon dioxide gas. Orig. art. has: 5 figures and 1 table.  
[Based on authors' Eng. abst.] [JPRS: 34,805]

SUB CODE: 20, 18 / SUBM DATE: 18May65 / ORIG REF: 002 / OTH REF: 005

Card 1/1 20/12

C919 1218

L 47532-66 EWP:j)/T WW/JW/RM  
ACC NR: AT5035003

SOURCE CODE: HU/2502/66/047/002/0157/0165

AUTHOR: Roder, Magda, Opauszky, Istvan--Opauski, I. and Kiss, Istvan--Kish, I. (Doctor),  
of the Department for Chemistry at the Central Research Institute for Physics,  
Hungarian Academy of Sciences in Budapest.

"Thermal Stability of the Eutectic Mixture of Diphenyl and Diphenylmethane"

Budapest, Acta Chimica Academiae Scientiarum Hungaricae, Vol 47, No 2,  
1966, pp 157-165.

Abstract: [English article; authors' English summary, modified] The thermal  
stability of the eutectic mixture of diphenyl and diphenylamine was studied  
by determining the amount and composition of the gaseous product formed and  
the degree of polymerization of the initial compounds in pyrolysis reactions.  
Since thermal cracking of the mixture takes place at above 400°C, the mix-  
ture is suitable as a reactor coolant only below this temperature. The pyro-  
lytic and radiolytic processes involved were discussed.

The authors thank Mr. K.  
Ujszaszi for carrying out the mass spectrometric measurements. Orig. art. has:  
5 figures and 5 tables. [JPRS: 36,002]

TOPIC TAGS: thermal stability, diphenylamine, pyrolysis polymerization

SUB CODE: 07,20 / SUBM DATE: 15 Dec 64 / ORIG REF: 001 / OTI REF: 011  
SOV REF: 001

Card 1/1 mjs

0921 15/6

OPAVA, J.

OPAVA, J. Scientific-research activity of the Czechoslovak Academy of  
Agricultural Sciences. p. 40.  
-sr. Activity of the Laboratory of Agricultural Meteorology.  
p. 47. vol. 4, no. 1,  
Jan. 1957, VESTNIK Praha, CZECHOSLOVAKIA

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

OPAVA, J.

Scientific and research activities of the Czechoslovak Academy of Agricultural  
Sciences. III. p. 140. (VESTNIK. Praha) (Vol. 4, No. 3, 1957)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, No. 7, July 1957. Uncl.

OPAVA, J.

Scientific and research activities of the Czechoslovak Academy of Agricultural Sciences. V. r. 1957. Vyd. 16. Vol. 4, No. 5/6, 1957, Praha, Czechoslovakia.

00: Monthly List of East European Accessions (JANU 53, Vol. 4, No. 1, Dec 1957. incl.

OPAVA, J.

AGRICULTURE

PERIODICAL: VESTNIK, VOL. 6, no. 1, 1959

Opava, J. Establishment of a branch of the Czechoslovak Academy  
of Agricultural Science in Slovakia. p. 2,  
Basis for producing feeding stuffs in a key problem of our  
agriculture. p. 4.  
A scientific symposium of large-scale poultry farming. p. 20.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 5,  
May 1959, Unclass.

OPAVA, Jindrich

Economic activities of the Czechoslovak Academy of Agricultural Sciences in 1959. Vestnik CSAZV 7 no.4:184-189 '60. (EEAI 9:9)

1. Reditel Ceskoslovenske akademie zemedelskych ved.  
(Czechoslovakia--Agriculture)



OPAVA, Jindrich

Activities of the International Agriculture and Forestry  
Information Center of the Member States of the Council  
for Mutual Economic Assistance. Vest ust zemedel 12 no.4:  
150-153 '65.

Make suggestions on the orientation of activities of the  
Institute of Scientific and Technical Information of the  
Ministry of Agriculture, Forestry, and Water Resources.  
Ibid.:196

1. Director of the Institute of Scientific and Technical  
Information of the Ministry of Agriculture, Forestry and  
Water Resources, Prague, Director of the International  
Agriculture and Forestry Information Center of the Member  
States of the Council for Mutual Economic Assistance, Prague.

OPAVSKA, M.; HONZALOVA, A.

Unusual foreign body (fishing line) in the bladder of a 14-year-old boy. Cesk. pediat. 18 no.8:720-721 Ag '63.

1. Detske oddeleni OUNZ v Pribrami, vedouci MUDr. M. Krejza.  
(BLADDER) (FOREIGN BODIES)

CA

17

**The chemistry and isolation of rutin** Jaroslav Opavsky  
*Catopis Caskha Lohmucta* 02, 81 (4/1944) — For the isolation of rutin (I) from buckwheat (II), *Fagopyrum esculentum*, in 1% yield, the leaves of II, gathered in the last stages of bloom, were ground, extd twice with EtOH by soaking in EtOH for 3 days at 30°, and the ext. was evapd to dryness. The residue was partially dissolved in H<sub>2</sub>O and extd. with C<sub>6</sub>H<sub>6</sub> to remove chlorophyll and other C<sub>6</sub>H<sub>6</sub>-sol. matter. The H<sub>2</sub>O layer was heated to boiling, filtered hot, and cooled to give crystals of I. The crude I was recrystd. 3 times from H<sub>2</sub>O and finally from EtOH to give I, m. 192-4°. Upon hydrolysis I yielded quercetin which gave the boronflavone reaction of Wilson-Weatherby-Bock (C 1 36, 4143).  
 James L. Dzel

2

BA

1119 Polarographic reduction of rutin, quercetin, and morin.  
O. Capka and J. Opavsky (Coll. Trav. chim., T. 100, 1980, 35,  
433-438).—Half-wave potentials of rutin (a glycoside of quercetin  
and rutinoside), quercetin [3 : 5 : 7 : 3' : 4'-pentahydroxyflavone],  
and morin [3 : 5 : 7 : 3' : 4'-pentahydroxyflavone], are  
measured with the polarograph (against a saturated calomel  
electrode). Reproducible results are obtained with tetraethyl-  
ammonium hydroxide buffers and ethanol solutions (observed  
half-wave potentials are: rutin, pH 6.3 -1.46v, pH 7.65 -1.52v,  
pH 12.0 -1.67v; quercetin, pH 6.3 -1.55v, pH 7.65 -1.615v,  
pH 12.0 -1.66v; morin pH 6.3 -1.57, pH 7.65 -1.63v, pH 12.0  
-2.00v. The wave height varies linearly with the concentrations  
of the compounds. The temp. coeff. of the wave heights have been  
measured for quercetin and rutin E. J. H. Birch

O PAVSKY J.

V Effect of hyaluronate on serum-induced myocarditis in rabbits. J. Pavsky. *Scripta Med. Fac. Med. Univ. Masaryk. Brno* 28, 299-8 (1953); *Excerpta Med.* Sect. II, 7, 640 (1954). — Hyaluronate inhibited myocardial lesions in rabbits sensitized with horse serum. It was given subcutaneously 20 mg./kg. for 20 days. Horse serum was given according to the method of Rich and Gregory (*Bull. John Hopkins Hosp.* 72, 65 (1943)). Microscopic exam. of the myocardium showed myocarditis in control animals, whereas in animals treated with hyaluronate only minute changes were found. The protective action of hyaluronate is explained on the assumption that it strengthens the tissue barrier against hyaluronidase and perhaps histamine. Hyaluronate alone does not possess antihistaminic properties. — R. H. D.

SEKAVSKY, J.; HADACEK, J.

Contribution to the study of bile acids. V. 2- 3<sup>a</sup>, 7<sup>a</sup>, 10<sup>d</sup>, -trihydroxynor-  
chlanyl-(23,-1,3,4-oxidiazolon-(5). p. 142. (EPHY, No. 373, 1956, Brno,  
Czechoslovakia)

50: Monthly list of East European Accessions (EAL) LC, Vol. 4, No. 12, Dec 1957. Incl.

CHARAMZA, Otakar; OPAVSKY, Jiri

Preparation of highly purified I-131 hippuran. Vnitřní lek. 11  
no.12:1211-1215 D ' 65

1. Radioisotopové oddelení FN Olomouc (vedoucí MUDr. M. Wiedemann a Farmakon), n.p. Olomouc.

OPAVSKY, W.

Rubber Abstracts  
March 1954  
Crude Rubber

3  
387. Seamless hollow articles. BY OPAVSKY, G.P. (1)  
285310, Appl. 30.5.50; Acc. 18.6.50. Swenable flat  
articles, instanced as of rubber and rubberlike  
materials, thermoplastic resins, or other materials,  
are treated with fluids capable of diffusing into the  
interior of the article at room temperature, or  
slightly above, causing swelling in such a way that  
a thin core layer remains stable, affording cohesion  
to the article, and surrounded on all sides by the  
swollen mass. The article is then subjected to  
a suddenly initiated heat treatment, causing a rapid  
vaporization of the swelling agent within the surface  
layer, or of constituents thereof, with reinforcement  
of the surface layer and a swelling, and, in some  
cases, dissolution, of the thin core layer. As a result  
of the gas production in the interior of the article  
there takes place splitting of the core zone and  
blowing, with the formation of a seamless article.  
7003



OPAVSKY, W.

2  
matl ①

*Rubber also*  
*✓-3/1hr/953*  
*Crude Rubber*

4957. Holofol, a new process for making seam-  
less objects from rubber slabs. W. OPAVSKY.  
Kaut. Anal., 1953, 3, 86-8. A popular description  
is given of the production of hollow articles, depend-  
ing on the splitting of an unvulcanised inner zone,  
by inflation by gas or by other means, in a single  
slab of rubber. An illustration shows the progressive  
splitting and inflation of the slab as it is passed on a  
conveyor belt through a heating zone. 3503

MF  
9-14-54

OPATSKY, W.

2  
2 May

2230. Itololol process and its application for the  
manufacture of seamless, inflatable articles in par-  
ticular rubber toys. W. OPATSKY, Plastmasbeller,  
1050, 7, No. 2, 4751st Road, Pat. Ala., 1050.  
11, abs. 1011. The method is described and some  
of the toys are illustrated. 3501

MR. J. J. J.

OPAVSKY, W

15  
2  
✓ 8174. Holafol process and its application. W.  
OPAVSKY, Plasterarbeiter, 1956, 7, 458-60; Brit.  
Pat. App. No. 1037, 19, abn. 622. The develop-  
ment of this process for the production of hollow  
articles from rigid and plasticized polyvinyl chloride  
is considered. The material must be of uniform  
composition and must not contain any particles  
which will be leached out by the swelling agent.  
8831121.553

RM m

USSR / Soil Science. Biology of Soils.

J-3

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77391

Author : Opdin, A. P.

Inst : ~~AS USSR~~

Title : Influence of Vegetation on the Composition of Microflora of Soil

Orig Pub : Izv. AN SSSR, ser. biol., 1957, No 4, 495-502

Abstract : Results are cited of investigations of the composition of microflora of the common chernozems (Kamonnaya Steppe) under unmowed and mowed fallow, in the forest zone and under various agricultural crops. It is shown that cultivated soils contain a great quantity of species and families of fungi. Their greatest quantity (for all soils) was contained in the upper layers of the soil. Differences in the microflora of the soils are expressed in the quantitative relation of representatives of different

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LESZCZYNSKI, Cz.; LIRO, M.; OPECHOWSKA, A.; GARBINSKI, J.; ZAJACZKOWSKI, B.

Abstracts. Przegl papier 20 no.10.Suppl.:Przegl dok  
papier 15 no.9:335-336 0 '64.

LIRO, M.; LESZCZYNSKI, Cz.; OFŁCHOWSKA, A.; GARBINSKI J.

Survey of papers on papermaking. Przegl ~~1964~~ 1:  
Supplement: Przegl dokum papier 15 no. 1: 1-2 Ja '64.

LESZCZYNSKI, Cz.; GARBINSKI, J.; LIRO, M.; NOWAKOWSKI, N.; OPECHOWSKA, A.;  
CZUBRYT, J.

Book reviews. Przegl papier 19 no.10:Supplement: Przegl dokum  
papier 14 no.9:1-2 0'63.

ZAJACZKOWSKI, B.; LIO, M.; OPECHOWSKA, A.; LESZCZYNSKI, Cz.;  
GARBINSKI, J.

Review of documentations. Przegl papier 20 no. 4:  
Supplement: Przegl dokum papier 15 no. 4: 1-2 Ap '64.



LIRO, M.; CZUBRYT, J.; LESZCZYNSKI, Cz., WINOZAKIEWICZ, A.; OPECHOWSKA, A.

Review of publications. Przegl papier 20 no.2.Suppl.:  
Przegl dokum papier 15 no.2:63-64 F'64.

ZAJACZKOWSKI, B.; GABLIŃSKI, J.; KUBOVI, J.; KUBOVI, M.; KUBOVI, Cz.;  
KUBOVI, A.

Abstracts of publications on pulp and paper. Przegl papier  
20 no.8 Supplement: przegląd dokumentów 15 no.7:1-2 Ag 1964

LESZCZYNSKI, Cz.; LIRO, M., CZUBRYT, J.; ZAJACZKOWSKI, B.; OPECHOWSKA, A.

Abstracts on papermaking. Przegl papier 20 no.12;Suppl;Przegl  
dok papier 15 no.10:1-2 D '64.

LIRO, M.; OPECHOWSKA, A.; LESZCZYNSKI, Cz.; CZUBRYT, J.

Abstracts. Przegl papier 21 no.1; Suppl: Przegl dokum papier 16 no.1:  
1-2 Ja '65.

CZUBRYT, J.; OPECHOWSKA, A.; LESZCZYNSKI, Cz.; LIRC, M.

Abstracts. Przegl papier 21 no.2:Suppl:Przegl forum papier  
16 no.2:1-2 F '65.

OPECHONSKA, J.; NOWAKOWSKI, J., WINCZAKIEWICZ, A., LIRO, M.,  
LESZCZYNSKI, Cz.

Reviews of publications on paper. Przegl papier 20 no. 1:  
Suppl.: Przegl dokum papier 15 no. 3: 1-2 Mr '64.

OPECZY, Endre

The regional development of the consumption per capital of the principal foods. Ele'm ipar 15 no.5:149-155 My '61.

1. Elelmezesugyi Miniszterium.

OPECZY, Endre; TOTH, Istvan

Application of collapsible containers in the food industry.  
Elelm ipar 18 no.1:14-18 J'64.

1. Elelmezésügyi Minisztérium (for Opeczy)
2. Szeszipari Országos Vállalat (for Toth).



OPECZY, Endre; TOTH, Istvar

Application of folded container in the food industry. Musz elet 19  
no.8:15 9 Ap '64.

~~OPEKAR, B.~~; Laboratorni spoluprace: CERMAKOVA, I.; JEDLICKOVA, H.;  
KREJCAROVA, A.; HRUBES, V.

Results of investigations of the atmospheric contamination  
in some centres of the South Bohemian region. Cesk. hyg. 8  
no.5:254-264 Je '63.

1. KHES, Ceske Budejovice.  
(AIR POLLUTION)

OPEKAR, B.; CERMAKOVA, I.

Study of the sulphur tetroxide concentration and the analysis  
of the causes of its variations in the atmosphere in Ceske  
Budejovice. Cesk. hyg. 9 no.2:78-84, Mr'64

1. KHES, Ceske Budejovie.

\*

OPEKAR, B.

The control of traffic noise in Ceske Budejovice. Cesk. hyg. 9  
no.9:570-578 1962.

1. Krajska hygienicko-epidemiologicka stanice Krajskeho narodniho  
vyboru Jihoceskeho kraje, Ceske Budejovice.



OPREKUNOV, A.

This is really creative performance. Sov. profsoyuzy 5 no.2:44-46  
P '57. (MLBA 10:4)

1. Instruktor Tsentral'nogo komiteta profsoyuza rabochikh stro-  
itel'stva.

(Taganrog--Building)

GONIKBERG, M.G.; MILLER, V.B.; NEYMAN, M.B.; D'YACHKOVSKIY, P.S.;  
LIKHTENSHTEYN, G.I.; OPEKUNOV, A.A.

Investigation of the effect of solvent on the rate of isotope  
exchange of the reaction  $C_3H_7J + J^-$  at pressures up to 2500 kg/cm<sup>2</sup>.  
(with English summary in insert). Zhur.fiz.khim. 30 no.4:784-  
788 Apr. '56. (MLRA 9:9)

1. Akademiya nauk SSSR, Institut organicheskoy khimii imeni  
N.D. Zelinskogo i Institut khimicheskoy fiziki, Moskva.  
(Propane) (Iodine--Isotopes)

5(4)

AUTHORS: Mayranovskiy, S. G., Gonikberg, M. G., SOV/20-123-2-29/50  
Opekunov, A. A.

TITLE: Polarography at High Pressures (Polarografirovaniye pri  
vysokikh davleniyakh)

PERIODICAL: Doklady Akademii nauk USSR, 1958, Vol 123, Nr 2, pp 312-315  
(USSR)

ABSTRACT: The present paper describes the apparatus and methods of  
polarography (with a mercury electrode) at pressures up to  
3,000 kg/cm<sup>2</sup>; it further gives the first results obtained  
concerning the influence exercised by pressure upon the polaro-  
graphic behavior of some simple ions. A schematical drawing  
shows the schematical structure of the measuring device used.  
It consists essentially of a steel vessel containing oil under  
pressure. The capillary of the drop-electrode is provided with  
a small shovel effecting (enforced) stripping-off of the  
drops, which warrants the maintenance of a constant period of  
dropping in the case of a variation of the electrode potential.  
In the course of the experiments carried out by the authors  
this period did not vary even if pressure was increased from  
atmospheric pressure to 3,000 kg/cm<sup>2</sup>. A saturated calomel

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Polarography at High Pressures

SCV/20-123-2-29/50

electrode was used for purposes of comparison. The electrode has a siphon filled with mercury, which served as a stopper. The entire vessel was located in a water bath in which a constant temperature ( $25 \pm 0.1^\circ$ ) was maintained by means of an ultrathermostat. The experiments are described in short. They were carried out with 2 solutions: a) 1.00 mM  $TlCl$  and 0.75 mM  $HCl$  in 0.1 n  $KCl$ ; b) 0.65 mM  $CdSO_4$ , 0.20 mM  $ZnSO_4$ , and 0.40 mM  $HCl$  in 0.1 n  $KCl$ . The results obtained are shown by a table and 2 diagrams. Investigation of experimental data permits drawing the following conclusions: 1) The potential of the half-wave  $Tl^+$  and the limiting current practically do not vary if pressure is increased from 1 to 3,000  $kg/cm^2$ . 2) The potentials of the half periods of  $Cd^{2+}$  and  $Zn^{2+}$  shift if pressure is increased towards higher negative values. The limiting current increases somewhat if pressure is increased from 1 to 1,000  $kg/cm^2$ . 3) The potential of the half-wave of the irreversible discharge of  $H^+$  shifts if pressure is increased to 3,000  $kg/cm^2$ , towards lower negative values; the limiting current increases throughout the entire pressure interval investigated. 4) The inclination of the waves of all ions investigated in practice does not depend on pressure.

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Polarography at High Pressures

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Next, an expression is written down for the variation of the potential of a half-wave for a reversible system. In the case of the dissolution of  $TlCl$  in 0.05 n and 0.2 n solutions of  $KCl$ , the solution expands a little, but at 0.1 n and 0.5 n it contracts somewhat. The decrease of overvoltage of hydrogen under pressure, which was noticed by the authors, is of considerable interest and deserves to be further investigated thoroughly. In conclusion, the influence exercised by pressure on the boundary value of the diffusion current is investigated. There are 4 figures, 1 table, and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute for Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

Card 3/4  
2

SOV/51-0-1-21, 30

AUTHORS: Gonikberg, M. G., Sterin, Kh. Ye., Ukholin, S. A., Gerasimov, V. T.,  
Alexandrov, V. T.

TITLE: Production of the Raman Scattering Spectra at High Pressures  
(Proizheniye spektrov kombinatsionnogo rasseyaniya pri vysokikh  
davleniyakh)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol. 6, Nr. 1, pp. 109-110 (USSR)

ABSTRACT: To obtain the Raman spectra at pressures up to 3500 kg/cm<sup>2</sup> the authors used apparatus shown in a figure on p. 110. A scattering cell 1 consisted of two steel cylinders one on top of the other. The external diameter of the outer cylinder was 160 mm and the diameter of the cell proper was 70 mm. The substance placed in the cell was illuminated through three windows which were at right angles to the cell. These windows are marked 2 in the figure. A fourth window (marked 3) was used to observe the scattered light. Construction of the windows follows Bridgeman's technique described in Ref. 5. The smallest diameter of the conical apertures at each window was 7 mm; the angle  $\psi$  was 45°. The Raman spectra were excited with the blue line of mercury,  $\lambda = 4538 \text{ \AA}$  produced by a FRK-type lamp. Three diaphragms (marked 5 in the figure) were used to cut out the light reflected by the internal walls of the

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Production of the Raman Scattering Spectra at High Pressures

SOV/51-5-1-21/30

cell. A spectrograph ISP-51 was used to obtain the Raman spectra of toluene and isopropylbenzene at pressures of 1000 and 2000 kg/cm<sup>2</sup> at room temperature. The photographic plates were exposed for 4-6 hours. No displacement of the Raman frequencies of toluene and isopropylbenzene was observed at these two pressures. The apparatus described may be used also to obtain the Raman spectra of compressed gases. There are 1 figure and 5 references, 4 of which are English and 1 translation of an English work into Russian.

SUBMITTED: July 7 1958

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- 5(4)  
AUTHORS: Yershov, Yu. A., Gonikberg, M. G., SOV/20-128-4-34/65  
Neyman, M. B., Opekunov, A. A.

TITLE: Measurement of the Electrical Conductivity of KJ in  
Non-aqueous Solvents at High Pressures

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4,  
pp 759-762 (USSR)

ABSTRACT: M. G. Gonikberg, V. B. Miller et al. (Ref 1) published,  
some time ago, a paper on the effect of the solvent (ethyl  
alcohol, acetone) on the reaction rate of isotope exchange  
 $n\text{-C}_3\text{H}_7\text{J} + \text{J}^-$  at pressures up to 2500 kg/cm<sup>2</sup>. The dependence  
of the dissociation degree of KJ on the pressure was not  
determined at that time. Now it is done by measuring the  
electrical conductivity on the assumption that the dissociation  
degree of KJ can be approximately determined by the  
ratio  $\lambda:\lambda_\infty$ . The apparatus is described (Fig 1) which is  
similar to the one of I. Buchanan and S. D. Hamann (Ref 4).  
The electrical conductivity of the sample was measured at  
1,000 cycles per second (generator of type ZG-10). An oscillo-

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Measurement of the Electrical Conductivity of KJ in  
Non-aqueous Solvents at High Pressures

SOV/20-128-4-34/65

graph of type EO-7 served as zero instrument. The measuring bridge was regulated by the resistance box of type R-58. The measurements were made at 20°. Table 1 shows that the equivalent conductivity of the solutions investigated decreases with increasing pressure while the dissociation degree  $\alpha$  of KJ computed from  $\lambda : \lambda_{\infty}$  increases. Table 2 (values of  $\alpha$  and  $k_u$  = constant of the ionic equilibrium) indicates that  $k_u$  in acetone increases more quickly than in ethyl alcohol. This corresponds to the result of reference 1 stating that the dissolution of KJ in acetone is accompanied by a more intense volume contraction than the dissolution in ethyl alcohol. This is also confirmed by the different signs of the volume variation under pressure influence (Table 3). Table 3 compares the values indicated in reference 1 and corrected in the present paper for the constants of the reaction rate of the isotope exchange  $n.C_3H_7J + J^-$  at pressures of 1, 1500, and 2500 kg/cm<sup>2</sup>. The correction does not change the

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Measurement of the Electrical Conductivity of KJ  
in Non-aqueous Solvents at High Pressures

SOV/20-128-4-34/65

qualitative character of the dependence found. There are  
1 figure, 3 tables, and 7 references, 2 of which are Soviet

ASSOCIATION Institut organicheskoy khimii im. N. P. Zelinskogo Akademii  
nauk SSSR (Institute of Organic Chemistry imeni N. P. Zelin-  
skiy of the Academy of Sciences, USSR)  
Institut khimicheskoy fiziki Akademii nauk SSSR (Institute  
of Chemical Physics of the Academy of Sciences, USSR)

PRESENTED: April 27, 1959, by N. N. Semenov, Academician

SUBMITTED: April 24, 1959

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66478

~~10(4)~~ 5.1600

SCV, 20-124-1-22-20

AUTHORS: Gonikberg, M. G., Tsiklis, L. S., Opekunov, A. A.

TITLE: On the Problem of Reinforcement of High Pressure Containers

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 1,  
pp 88 - 90 (USSR)

ABSTRACT: Recently a method of replacing the tensile stresses in constructions by compressive stresses, is applied in the construction of high pressure apparatus. The fact is used as well, that the compressive strength of materials like tungsten carbide and hard steels is by 3 to 4 times larger than tensile strength. This principle for instance, is applied to that construction, which is known under the name "tetrahedral anvil" and which makes it possible already now to produce pressures of 20000 atmospheres within the apparatus at very high temperatures. In this construction 4 pistons move in a highly viscous medium (pyrophyllite) towards a common center. The triangular plane frontal areas of these pistons (with a pyrophyllite intermediate layer between them) form a tetrahedral high-pressure "container". 2 problems are solved by such a construc-

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66477

On the Problem of Reinforcement of High Pressure  
Containers

SOV/20-129-1-24/84

tion: The backing of the moving piston and the production of a high-pressure container, ~~with~~ extremely high strains and high temperatures. These problems, however, may be solved separately, using the same principle, which underlies the tetrahedral anvil. First the construction of a high-pressure container with high strength is discussed. At the internal walls of the container a plastic layer is formed, which is fixed by an elastic layer. With increasing extension of the plastic layer, the elastic layer becomes thinner and thinner and, at a certain pressure, a break occurs. As was shown by experiments, high pressure containers break from outside. Now, a high pressure container may be assumed, which is produced of 2 layers, of an external elastic bandage and of an internal layer, which is composed of several hard wedges (compare R. V. Mil'vitskiy (Ref. 3)). The material of these wedges reacts not to extension, but to pressure and, therefore, withstand considerably higher pressure than the walls of a customary cylinder. An apparatus with a high-pressure container, which is schematically illustrated by a picture, was developed and built by the authors,

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On the Problem of Reinforcement of High Pressure Containers . CV '20-129-1-24'61

on the basis of this principle. 4 wedges with spherical surfaces, fit together by careful grinding (which represent the high-pressure container), are inside of a steel-bandage. The wedges form a channel, which contains a pyrophyllite-cylinder, with the sample to be investigated. This construction withstands pressures of more than 50000 atmospheres at high temperatures. In this construction the wedges work almost without backing. The results of such an experiment (polymorphic conversion of bismuth) is illustrated by a diagram. The pressure, attained during this experiment, exceeds the conversion pressure of bismuth almost by the double. Repeated experiments at ~5000 atmospheres and at temperatures of 1500°C, over many hours, caused no noticeable alteration at the internal surface of the wedges. By producing a backing for the moving anvils, by production of the pistons and the wedges from hard alloys, the maximum attainable pressures may be increased. M. D. Puzhinsky took part in the investigations. There are 3 figures and 3 references, 1 of which is Soviet

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66478

On the Problem of Reinforcement of High Pressure Containers SOV'20-129-1-22/54

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskoy of the Academy of Sciences, USSR) Gosudarstvennyy institut azotnoy promyshlennosti (State Institute of Nitrogen Industry)

PRESENTED: July 3, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: June 30, 1959 ✓

Card 4/4

OPEKUNOV, A.D.; MAKAROVA, E.A., red.; KOROBOVA, N.D., tekhn. red.

[Large-scale production at enterprises of the building materials industry and the construction industry] Proizvodstvenno-massovaya rabota na predpriyatiyakh stroitel'nykh materialov i stroitelskii. Moskva, Profizdat, 1962. 106 p. (MIRA 16:3)

(Trade unions) (Construction industry)

(Building materials industry)

OPENNIKOV, K. A.

"Controlled Regulation of the Sex of Animals." Cand Biol Sci, Kharkov Veterinary Inst, Kharkov, 1954. (IL, No 2, Jan 65)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13) 10: Ser. 502, 20 Jun 65

OPEKUNOVA, A.P.

Making cross-section blocks on milled peat fields. Torf. prom.  
no.1:36-37 '58. (MIRA 12:12)

1.Teykovskoye torfopredpriyatiye.  
(Teikovo--Peat industry--Equipment and supplies)

ОРЕКУНОВА, А.П., инж.

Special earthenware pipes for crossing on milled peat fields. Torf.prom.  
36 no.1:33-34 '59. (MIRA 12:3)

1. Тейковское торфопредприятие.  
(Peat industry--Equipment and supplies)  
(Pipe, Clay)

OPEKUNOVA, M. I.

7768. NOVOZHILOVA, V. A. i OPEKUNOVA, M. I. Itogi introduktsii dekorativnykh derev'yev i kustarnikov. (Dvadtsatiletniy opyt raboty sektora ozeleneniya gorodov akad. Kommun khozyaystva im. K. D. Pamfilova M., IZD-vo M-va kommun. khozyaystva rfsr, 1954. 116 s. s Ill. 22sm. 3.000 EKZ. 4r. 5k.--(55-4314) p  
635.976/7:631.525

SO: Knizhnaya Letopis', Vol. 7, 1955



OPEKUNOVA, N.P.

Difficulties and errors in the diagnosis of tubercular meningitis.  
Trudy AN Tadzh.SSR 32:81-88 '56. (MLRA 9:8)

1. Iz kafedry detskikh bolezney (zav. prof. V.S.Vyal') Stalinabad-  
skogo gosudarstvennogo meditsinskogo instituta imeni Abuali ibn  
Siny

(MENINGES—TUBERCULOSIS) (STREPTOMYCIN)  
(SALICYLIC ACID ISOMERS)

OPEL', Varvara Vladimirovna; SHVAREV, A.I., red.; BUGROVA, T.I.,  
tekh. red.

[Restoration of speech in aphasia] Vosstanovlenie rechi  
pri afazii; metodicheskie ukazaniia. Leningrad, Lenmedgiz,  
1963. 104 p. (MIRA 17:1)



OPELA, M.

The area of the eastern Bosnians. p. 194.

KRASY SLOVENSKA. Bratislava.

Vol. 30, no. 9, 1953

SOURCE: Monthly List of East European Accessions (EEAL), LC, Vol. 5,  
No. 3, March 1956

OPELA, Y.

Martinske Hole Mountain Range/ p. 2, KRASY SLOVENSKA. Bratislava  
Vol. 31, no. 1, Jan. 1954.

SOURCES: East European Accessions List. (EEAL) Library of Congress.  
Vol. 5, No. 8, August 1956.

OPELA, M.

The wild boar; a short story. p. 191. KRASNY SLOVENSKI. Bratislava.  
Vol. 31, no. 6, June 1954.

SOURCE: East European Accessions List. (EEAL) Library of Congress.  
Vol. 5, No. 8, August 1956.

OPELA, M.

Strasov Highlands. p. 291.  
Vol. 31, no. 10, Oct. 1954.

SOURCE: East European Accessions List. (EEAL) Library of Congress.  
Vol. 5, No. 8, August 1956.

OPELETAL, Zdenek; inz.

Wow meter calibration. Sdel tech 12 no.10:367-309 0 '64.

DOMASHIN, Valentin Aleksandrovich; OPIN, Leonid Nikolayevich; YAKOVLEV,  
Sergey Malakhovich; KOLOTUSHKIN, V.I., red.; CHERNOV, V.S., tekhn.  
red.

[Electricians as innovators in the peat industry] Elektriki-  
novatory torfianoi promyshlennosti. Moskva, Gos. energ. izd-vo.  
Pt.2. 1957. 93 p. (MIRA 11:7)

(Peat machinery)



OPESCHUK, A.

Simplify issuing of credit for private housing construction.  
Fin. SSSR 19 no.1:75-76 Ja '58. (MIRA 11:2)

1. Upolnomichenny Sel'khozbanka.  
(Dwellings) (Credit)

KHOKHREV, I.S. (Leningrad); OPENDIK, M.D., inzh. (Leningrad)

New methods are used for the operation of locomotives. Znel.  
dor. transp. 46 no.7:64-66 J1 '64. (MIRA 17:8)

1. Nachal'nik sluzhby dvizheniya Oktyabr'skoy dorogi (for  
Khokhrev).

OPENDIK, Moisey Davidovich; GANKIN, Nikolay Borisovich;  
LOMIDZE, G.I., red.

[High-speed traffic of passenger trains; experience of  
the Oktiabr' Railroad] Skrostonoe dvizhenie passazhirskikh  
poezdov; opyt Oktiabr'skoi dorogi. Moskva, Transport,  
1965. 70 p. (MI A 11:1)

KRIVOSHEYEV, V.G.; OPENKO, Z.M.; SHABANOVA, Ye.V.

Materials on the biology of the frogs *Rana temporaria* L. and *R. terrestris* Andr. Zool. zhur. 39 no.8:1201-1208 Aug '60.

(MIRA 13:8)

1. Department of Zoology, Moscow State V.I.Lenin Pedagogical Institute.  
(Moscow Province--Frogs)

OPENLENDER, B.V.

Mathematical errors in vol. 22 of "Uchenye zapiski" of the  
Mariysk Pedagogical Institute. Uch. zap. Osh. gos. ped. inst.  
no. 5:29-33 '63. (MIRA 18:2)

OPENLENDER, I.V.

Vertical zonality of soils in the Atbashi-Kara Koyun Depression  
and the surrounding mountain ranges. Izv. AN Kir.SSR. Ser.biol.nauk  
2 no.1:117-127 '60. (MIRA 13:11)

(ATBASHI VALLEY--SOILS)

(KARA KOYUN VALLEY--SOILS)

OPENLENDER, Igor' Vladimirovich; ESENBAEV, Kambaraly; YUSUPOV, Tulegen;  
ROYCHENKO, G.I., otv. red.; VOZHEYKO, I.V., red. izd-va; ANOKHINA,  
M.G., tekhn. red.

[Soils of the central part of the Naryn Basin (At-Bashi-Kara-Koyun,  
Ala-Buga-Naryn, and Toguz-Torou depressions)] Pochvy srednei chasti  
Narynskogo basseina (At-Bashi-Kara-Koiunskaiia, Ala-Buga-Naryn.skaiia  
i Toguz-Torouskaia vpadiny). Frunze, Izd-vo Akad.nauk Kirgizskoi  
SSR, 1961. 220 p. (MIRA 14:12)

1. Akaderiya nauk Kirgizskoy SSR, Frunze. Otdel pochovedeniya.  
(Naryn Valley--Soils)

OPENOV, G.A.

Use of lignin in the production of ebonite. Gidroliz. i  
lesokhim. prom. 14 no. 1:8-9 '61. (MIRA 14:1)  
(Lignin) (Rubber)



OPENOV, G.A.; NIKOLAYEVSKAYA, Z.N.

Rubber water pipe for livestock farms. Kauch. i rez. 20 no.12:51  
D '61. (MIRA 15:1)

(Pipe, Rubber)

OPENOV, G.A.; SHISHKOV, N.P.

Programming regulators for ebonte vulcanization. Kauch. i rez.  
22 no.8:48-49 Ag '63. (MIRA 16:10)

L 8728-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 ASD(p)-3/ASD(m)-3/RAEM(1)

DJ/EM  
ACCESSION NR: AP4045006

S/0065/64/000/009/0053/0056

AUTHOR: Kobzeva, R. I.; Tubyanskaya, G. S.; Operina, Ye. M.;  
Lavkina, N. K.

TITLE: Stabilization of polysiloxanes by antioxidant additives

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1964, 53-56

TOPIC TAGS: polydimethylsiloxane, polydimethylsiloxane grease, anti-oxidant, antioxidant additive, additive effectiveness

ABSTRACT: The possibility of prolonging the life and raising the upper temperature limit for the use of polydimethylsiloxane oils and greases based on them, by means of antioxidant additives, has been studied. The relative effectiveness of additives was evaluated from the gelation time of the oils. The experiments, which consisted in determining the weight loss and viscosity of the oils, were conducted with PMS-100 and PMS-400 silicone oils and with such antioxidants as phenyl-1-naphthylamine phenothiazine, 1,4-dimesidinoanthraquinone, Ionol, bisphenol, pyrene, fluoranthrene, coronene, and dilauryl selenide. The most effective antioxidant additive was found to be

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L 8728-65  
ACCESSION NR: AP4045006

2  
1,4-dimesidinoanthraquinone, 0.5% of which increased the thermal-oxidative stability of PMS-100 at 300C by 1600% and at 250C by 4400%. It was also shown that the combination of two or more antioxidant additives can increase their mutual effectiveness, that the effectiveness of certain additives passes through a maximum with an increase in their concentration, and that the use of additives in amounts over 3% is not expedient. The poor solubility of additives in polydimethylsiloxane oils does not hinder the use of additives in greases, since the thickeners prevent their sedimentation and since, in service at higher temperatures, the additive dissolves in the liquid phase of the grease. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: VNIINP

SUBMITTED: 00

ATD PRESS: 3111

ENCL: 00

SUB CODE: 7P

NO REF SOV: 000

OTHER: 012

Card 2/2

OPERSHTEYN, I.A.

Using a scraper conveyer to deliver cottonseed to the processing unit. Masl.-zhir.prom. 21 no.3:37 '56. (MLRA 9:8)

1. Chinkentskiy maslozhirkombinat.  
(Conveying machinery)

OFESKIN, A.G.; BONDAREVICH, N.N.; SAKHAROV, V.N.

Single cable grab bucket for loading bulk materials with  
self-propelled cranes. Rats. i izobr. predl. v stroi. no.89:  
12-13 '54. (Cranes, derricks, etc.) (MLRA 9:6)

OPEYKIN, I.

Practices in mechanization work. Zhil. stroi. no.9:25-26  
'62. (MIRA 16:2)

1. Glavnyy inzhener tresta Volgogradmetallurgstroy.  
(Volgograd—Building—Technological innovations)

ОФЕYKO, F. A.

Peat Industry

The extent of treatment of peat. Sbor. nauch. trud. Inst. torfa AN BSSR no. 1,  
1951

9. Monthly List of Russian Accessions. Library of Congress, August 1953<sup>2</sup> Uncl.



MATSEPURO, M.Ye., professor; ZHILIN, A.P., kandidat tekhnicheskikh nauk;  
OPHYKO, F.A., professor, redaktor; ALEKSEANDROVICH, Kh., tekhnicheskii redaktor.

[Over-all mechanisation of swamp drainage and of the preparation of peat for fertilizer] Kompleksnaia mekhanizatsiia osusheniia bolot i sagotovki torfa na udobrenie. Minsk, Izd-vo Akademii nauk BSSR, 1954. 186 p. [Microfilm] (MIRA 8:2)

1. Deystvitel'nyy chlen AN BSSR (for Matsepuro).  
(Drainage) (Peat)

~~CHLENKO, S.~~, professor, doktor tekhnicheskikh nauk

Degree of processing in peat processing and forming machines. Trudy  
Inst.torf.AN BSSR no.2:3-18 '53. (MLRA 8:11)

1. Chlen-korrespondent Akademii nauk BSSR  
(Peat machinery)

SOV/127-57-5-5195

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 14 (USSR)

AUTHOR: Opeyko, F. A.

TITLE: The Damping Coefficient of a Perturbed Motion (Koeffitsiyent zatukhaniya vozmushchennogo dvizheniya)

PERIODICAL: Tr. In-ta torfa AN BSSR, 1955, Vol 4, pp 98-101

ABSTRACT: With reference to the system of differential equations

$$\frac{dx_i}{dt} = \sum_{k=1}^n a_{ik} x_k \quad (i=1, \dots, n) \quad (1)$$

the author proposes that the degree of the asymptotic approach of the perturbed motion to the unperturbed motion be expressed by the quantity

$$\frac{1}{n} \sup \| a_{ik} \|_1^n$$

which the author designates as the "damping coefficient". This proposition is substantiated by the reasoning that the quantity

Card 1/2  $(a_{11} + \dots + a_{nn})/n$  characterizes, on the average, the rate of decrease

SOV/124-57-5-5195

# The Damping Coefficient of a Perturbed Motion

of the radius vector  $\rho^2 = x_1^2 + \dots + x_n^2$  along the trajectory of system (1). It should be noted that the selection of the quantity  $(a_{11} + \dots + a_{nn})/n$  as a measure of the damping is obviously inadequate, since (even if we limit ourselves to cases of stability) systems having one and the same measure of  $(a_{11} + \dots + a_{nn})/n$  may exhibit any conceivable duration of the transient process,  $T(\epsilon_1, \epsilon_2)$  (from the surface of the sphere  $x_1^2 + \dots + x_n^2 = \epsilon_1^2$  to the interior of the sphere  $x_1^2 + \dots + x_n^2 \leq \epsilon_2^2$ ).

N. N. Krasovskiy

Card 2/2

OPEYKO, F.A., professor.

Graphic-analytic determination of the area of a transferable  
surface. Trudy Inst.torf. AN BSSR 4:102-106 '55. (MLBA 9:3)

1. Chlen-korrespondent AN BSSR.  
(Geometry, Analytic)

OPBYKO, F.A., professor.

Coefficient of resistance of the lower track of a crawler vehicle.  
Trudy Inst.torf. AN BSSR 4:107-110 '55. (MLRA 9:3)

1. Chlen-korrespondent AN BSSR.  
(Caterpillars (Vehicles))

OPRYKO, Y.A., professor.

Friction drive with crossing axles. Trudy Inst.torf. AN BSSR 4:  
111-117 '55. (MLRA 9:3)

1. Chlen-korrespondent AN BSSR.  
(Gearing)

OPEYKO, F.A.

Simplified formulas for calculating the coefficient of resistance  
to deformation of peaty soil under wheels and crawler tracks.

Trudy Inst.torf. AN BSSR 4:118-121 '55.

(MLRA 9:3)

1. Chlen-korrespondent AN BSSR.

(Soil mechanics)



OPRYKO, F.A., professor, doktor tekhnicheskikh nauk.

Static turn of a crawler trailer. Trudy Inst.torfn BSSR 5:145-152  
'56. (MLRA 9:12)

1.Chlen-korrespondent Akademii nauk BSSR.  
(Statics) (Automobiles--Trailers)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
p 253 (USSR) 15-57-7-15006

AUTHOR: Opeyko, F. A.

TITLE: Cylindrical Granulator for Processing of Peat Pellets  
(Mekhanicheskaya pererabotka frezernoy torfyancy  
kroshki v tsilindricheskom granulyatore)

PERIODICAL: Tr. In-ta torfa AN BSSR, 1956, Vol 5, pp 153-156

ABSTRACT: The present article describes a peat-processing machine in the form of a cutter and cylindrical granulator. The cutter has a small axial length and a high rotary speed. It feeds the peat into the revolving cylinder or cone, the axis of which is not parallel to the stream of the peat as it leaves the cutter. The direction of rotation of the granulator is such that its motion at the point where it strikes the air-peat stream issuing from the cutter is

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Cylindrical Granulator (Cont.)

opposite to that of the rotary component of the stream. This produces an increase in the rate of movement of the peat in relation to the inner surface of the pipe. This rate of movement may exceed that of the stream. The peat is mechanically granulated in the space between the cutter and the peat bed and also between the cutter and the fixed housing in the granulator. Processing occurs at the expense of the kinetic energy of the stream of peat. The machine requires two forward movements to obtain a sufficient width of the cut strip. These are: 1) the movement on the caterpillar tracks of the machine; and 2) the lateral feeding movement. The machine should have a scraper in the form of a narrow blade which moves progressively in the axial direction. Formulas are given for computing the following elements: 1) the energy transmitted to the unit volume of peat by the cutter and the granulator; 2) the degree of granulating of the peat; 3) the power needed for operation of the cutter and granulator. Numerical examples of calculation of these values are given.

Card 2/2

A. A. Kostin

OPEYKO, F.A.

Theory of the revolution of the caterpillar tread of peat machines.  
Trudy Inst. torf. AN BSSR 6:470-499 '57. (MIRA 11:7)  
(Peat machinery) (Caterpillars (Vehicles))

OPEYKO, F.A.

~~Most~~ advantageous arrangement of the blade of a peat ridger. Trudy  
Inst. torf. AN SSSR 6:508-510 '57. (MIRA 11:7)  
(Peat machinery)

OPEYKO, P.A.

~~Static friction apparatus. Trudy Inst. torf. AN BSSR 6:511-520~~

'57.

(MIRA 11:7)

(Friction)

OPEYKO, P.A.

Calculated amount of timber in localized spots in peat deposits.  
Trudy Inst. torf. AN BSSR 6:521-526 '57. (MIRA 11:7)  
(Peat bogs)

OPEYKO, F.A., doktor tekhn. nauk, prof.

Transforming equations for the mechanics of free plane motion into the homogeneous form, and proof of the theorem on the minimum sum of moments of the forces acting upon a film resting on a rough surface. Sbor. nauch. rab. Bel. politekh. inst. no.60:131-137 '57.

(MIRA 13:2)

1. Chlen-korrespondent AN BSSR.  
(Mechanics, Analytic)



ОПЕYKO, P.A., доктор техн. наук, проф.

Minimum sum of the moments of the forces acting upon a crawler tractor  
in static turning. Sbor. nauch. rab. Bel. politekh. inst. no.60:13P-140  
'57. (MIRA 13:2)

1.Chlen-korrespondent AN BSSR.  
(Crawler tractors--Dynamics)

ОПЕВКО. Е.А.

Bearing capacity of peat deposits and their resistance to motion.  
Inzh.-fiz.zhur. no.1:80-87 Ja '68. (MIRA 11:7)

1. Institut torfa AN BSSR, g. Minsk.  
(Peat soils)

OPEYKO, P.A., prof., doktor tekhn.nauk

Development of the peat-machinery industry. Mash.Bel. no.5:  
216-219 '58. (MIRA 12:11)

1. Chlen-korrespondent AN BSSR.  
(Peat machinery)

OPEYKO, P.A.

Hodograph of the coefficient of friction for N.E. Zhukovskii's  
model "frictionless motion" [with summary in English]. Inzh.-fiz.  
zhur. 1 no.8:105-107 Ag '58. (MIRA 11:8)

1. Institut torfa AN BSSR, Minsk.  
(Kinematics)